

# UCP1 Rabbit pAb

Catalog No.: A18853

## Basic Information

### Observed MW

30kDa

### Calculated MW

33kDa

### Category

Primary antibody

### Applications

ELISA, WB

### Cross-Reactivity

Mouse

## Background

Mitochondrial protein responsible for thermogenic respiration, a specialized capacity of brown adipose tissue and beige fat that participates in non-shivering adaptive thermogenesis to temperature and diet variations and more generally to the regulation of energy balance. Functions as a long-chain fatty acid/LCFA and proton symporter, simultaneously transporting one LCFA and one proton through the inner mitochondrial membrane. However, LCFAs remaining associated with the transporter via their hydrophobic tails, it results in an apparent transport of protons activated by LCFAs. Thereby, dissipates the mitochondrial proton gradient and converts the energy of substrate oxydation into heat instead of ATP. Regulates the production of reactive oxygen species/ROS by mitochondria.

## Recommended Dilutions

WB 1:500 - 1:1000

## Immunogen Information

### Gene ID

281561

### Swiss Prot

P10861

### Immunogen

A synthetic peptide corresponding to a sequence within amino acids 100-200 of cattle UCP1 (NP\_001160000.1).

### Synonyms

Mitochondrial brown fat uncoupling protein 1

## Contact

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## Product Information

### Source

Rabbit

### Isotype

IgG

### Purification

Affinity purification

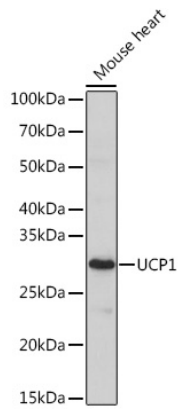
### Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.01% thimerosal, 50% glycerol, pH7.3.

## Validation Data

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Western blot analysis of lysates from Mouse heart, using UCP1 Rabbit pAb (A18853) at 1:1000 dilution.  
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
Lysates/proteins: 25 $\mu$ g per lane.  
Blocking buffer: 3% nonfat dry milk in TBST.  
Detection: ECL Basic Kit (RM00020).  
Exposure time: 180s.